

For the following examples, state whether or not there is a problem with the person's conclusions and explain the problem (if there is one).

1. A researcher located 100 pairs of identical twins who had been reared apart and reunited them. The twins discovered that they had an extraordinary number of things in common. For example, one set discovered that, among other things, both have a daughter named Cindy, a workshop where they restore old cars, cocker spaniels, and they both crush their beer cans with their left hands. The other pairs of twins also had numerous similarities. The researcher concluded that these stories are evidence that our personalities are influenced by genetics.
2. A group of researchers claim that they have discovered the cause of aggression. One of their studies showed that individuals with damage to an area of the brain called the amygdala were less aggressive than individuals without such damage. Another study found that surgically destroying a small area of the amygdala in cats caused them to behave less aggressively than normal cats. A third study found that electrically stimulating the amygdala in hamsters caused them to behave more aggressively. The researchers concluded that the cause of aggressive behavior is abnormalities of the amygdala.
3. A researcher tested a new drug designed to decrease depression. She gave it to 100 clinically depressed patients and discovered that their average level of depression, as measured by a standardized depression inventory, declined after 4 months of taking the drug. She concluded that the drug reduces depression.
4. Sylvia claims she can use her psychic powers to determine what happened to individuals who have been reported missing. She points out that she correctly predicted that several individuals who had been missing for months were dead. A skeptical researcher asks her about several additional people who were recently reported missing, and she predicts that they are also dead. However, the researcher discovers that all of them are still living. The researcher asks Sylvia whether these cases cast doubt on her psychic abilities. Sylvia explains that skeptical researchers' negative vibes often disrupt psychic abilities, and if she had made the predictions without the presence of the researcher, she would have been accurate. Thus, she believes the evidence supports her psychic abilities.
5. Years ago, some psychologists observed that the parents of autistic children appeared very aloof and detached from their autistic children than were parents of normal children. These psychologists concluded that parental detachment was the cause of autism.
6. A survey research company hired by the Democratic party contacted a large, representative sample of Americans to examine their beliefs about new legislation design to reduce crime. They asked the respondents, "Would you agree that this new legislation will reduce crime and make our streets safer, is a good piece of legislation for America?" Close to 92% of the sample answered "yes." The research company conclude t t most Americans support the legislation.

7. A developmental psychologist conducted a longitudinal study of moral development using a group 1,000 boys beginning at age 8 and continuing through age 14. The findings demonstrated that there are identifiable stages of development occurring across the age periods studied. In the publication of the results, the psychologist named the stages and concluded that they represent the stages of typical moral development for all children, ages 8-14.
8. An animal advocacy group studied the effects of animal ownership on owners' health. They studied a large, representative sample of older adults and obtained their medical records. Their findings showed that adults who had owned pets (i.e., dogs or cats) for a longer period of time had fewer medical problems than did adults who never owned pets or owned them for a shorter time period. They concluded that owning pets decreases the likelihood of developing health problems.
9. In order to test-market their new detergent, a company sent free samples to 300 randomly selected households. A few weeks later, they called them and asked, "Are you amazed at how much cleaner and brighter your clothes are after using our new detergent?" About 90% of the 300 respondents said, "yes." The company concluded that their new detergent cleans and brightens clothes very effectively.
10. Researchers randomly assigned male juvenile offenders to conditions where they watched either violent or nonviolent films. They discovered that those in the violent film group were less likely to go for help when they witnessed a later real-life violent episode than those in the nonviolent film group. On that basis, the researchers concluded that violent films harden all film goers to real-life aggression.
11. Dr. Jones is testing a new treatment for cancer. He administered the treatment to a large sample of patients and kept track of who lived and who died after receiving the treatment. For each person t? who lived, he attributed the success to the treatment. For each person who died, he attributed the death to the severity of the person's cancer. _He concluded that his treatment was effective.
12. A researcher tested a new weight loss supplement She gave it to 200 overweight adults and discovered that their average weight, as measured by a precise weight scale, declined after two months of taking the supplement. She concluded that the supplement promotes weight loss.
13. A group of biological researchers concluded that they have found the cause of alcoholism. They discovered that alcoholics do not have a small cluster of cells, common to non-alcoholics, located near the hypothalamus. They have also demonstrated that destroying this area of the brain in normal rats caused them to develop a preference for alcohol in their water. Moreover, in another study they found that normal humans who had this part of the brain damaged in accidents later became alcoholics.
14. Over the past few years, Jody has had several dreams that apparently predicted actual events. For example, in one dream she saw a car accident, and later that week she saw a van run into the side of a pickup truck. In another dream she saw dark black clouds and lightning, and two days later a loud thunderstorm hit her neighborhood. She believes these events are evidence that she has a psychic ability to predict the future through her dreams.